

D & D SUBGROUP HIGHLIGHTS

January 11, 2000

This meeting was held in the ETB, Wenatchee River Room. The meeting began at 9:00 a.m.

STCG Reorganization

Dennis Brown reviewed the changes that the STCG will be undergoing this year. The Management Council will be meeting quarterly instead of monthly. These meetings will be informational, as the decision making will take place in the subgroups. Harry Boston will be the new DOE chair of the Management Council. Each subgroup will also have a DOE Planning and Integration person assigned to it. There may be another STCG subgroup formed called Nuclear Materials in response to the new national Nuclear Materials Focus Area (NMFA). At the national level there is discussion about forming a Stewardship Focus Area.

PNNL Robotics Work

Sharon Bailey gave a viewgraph presentation on robotics work that PNNL is doing at Hanford. Sharon is the Hanford Site representative to the EM-50 Robotics Crosscut Program (RBX). The Hanford Robotics Initiative has not been funded yet but may get a \$15 million budget next FY. Sharon then reviewed RBX activities that were done in support of the MW, D&D, and Tanks Focus Areas with Hanford applications.

The major RBX project for the MWFA is the HANDSS-55 Waste Repackaging System for SRS. PNNL is part of a team that also includes INEEL and is working on repackaging RH waste for shipment to WIPP. PNNL is working on two tasks: procuring a universal end-effector system and building a manual sort bin end-effector (MSBE). The universal end-effector system is a three-finger gripper with fingers that open and close and the system rotates to allow it to pick up odd shaped pieces. In addition, this system has a tool stand and exchange plate. The MSBE is to handle and help sort non-compliant items. The MSBE has a 200 lb. load capacity and a volume of 1 cubic foot. The MSBE will be tested at INEEL. In direct support of the Hanford effort the RBX team at PNNL is putting a technology assessment together for size reduction of long-length TRU waste. This is in support of the M-91 TRU waste project. The assessment will define the problem at Hanford and provide a status report as to current and past efforts that may help solve the problem. FETC has set aside \$2.3 million to help with solving this problem.

The RBX team has been supporting the CDI work at U-Plant for the last two years. In FY98 the U-plant railroad tunnel was characterized with the Andros robot. The Andros robot was an abandoned, contaminated robot that was cleaned up and reworked. The robot traversed the 250-foot railroad tunnel collecting smear samples, filming video, and monitoring radiation levels. There had been no human access to the tunnel for more than 20 years. In FY99 the U-plant ventilation tunnel was surveyed by the Andros robot. Again the robot collected video, radiation and smear samples from the 750-foot tunnel. In FY00

the U-Plant drain line is scheduled to be inspected. This work is just getting underway now.

In the past, the RBX has also provided technical assistance for the Tank Farm sampling and analysis effort. The majority of the work has been for the Pit Operations Enhancement Project, which has the goal of deploying a remote system platform for improving operations in Hanford valve and equipment pits at the Tank Farms. In FY99 a technology assessment was done and externally reviewed by the ASME. In FY00 an MOA is being developed with TFA, RBX and Tank Farms to specify, procure, test and install the remote system in the AW tank farm pits. Once the MOA is agreed upon and funding obtained an RFP would be issued for needed equipment. The proposed tank platform would leave adaptors on the arm to move valves and would have enough strength to assist the crane in making some connections. The system would also be used to cut up jumpers, decon items, and apply fixatives.

The RBX team is doing real work for real uses on real problems including Hanford clean-up work. The team is involved in hardware design and development and is focusing on field deployments in hot environments. Sharon then showed video of the Andros robot in the ventilation and rail tunnel at U-plant. The robot can fit through a 3-foot square entrance and then be deployed. The Andros robot costs about \$100K and the manufacturer also makes a smaller model. The cost to use Andros in a room would be about \$20K depending on how many samples are taken and the radiation levels in the room.

DDFA Response to Hanford Needs

Dennis Brown has received feedback from the DDFA on our needs and wants the contractors to review the responses and attend a meeting on January 26, 2000 to discuss our responses in a conference call with DDFA representatives. The responses this year are much better than last year. The DDFA would like written response by January 28, 2000 but we will discuss this with them during the conference call. Dennis will get an e-mail with instructions out to the contractors this week. For the first cut at the DDFA response we are looking at putting the responses per need into three categories: meets need, may meet need, or missed the point. Please bring this initial review to the conference call meeting.

ASTD FY00 Call for Proposals

Bill Bonner stated that this year the ASTD is focusing on D&D projects and that \$7 million is available. An ASTD website with information on the call is available at <http://id.inel.gov/astd/>. The projects would need to be deployed in the next one to two years and 50% of the funding has to come from the site budget. This year there is a life-cycle cost analysis methodology that needs to be used to show the cost savings. This also is available on the ASTD website. A project can request up to \$2 million from the ASTD. Greg Berlin is working at submitting one or two proposals for the PHMC and distributed a

list of potential ASTD proposal topics. Kim Koegler also identified potential proposals that the ER Project is considering. The proposals have to be received by March 3, 2000.

CDI Update

Kim Koegler stated that BHI has undergone some organization changes including Mike Hughes taking over for Steve Liedle. In addition, Bob Henckel has been named the Decommissioning Projects Manager; he will also continue as Task Lead for the CDI Project until further notice. Dennis Brown has taken Sharon Saget's place on the CDI team.

The crane is having problems and there are still 26 out of 40 cells left to open this year. After opening the cells a video of each cell and gamma camera readings are taken in the cells. Liquid detection in cells and in the hot pipe trench will be done this FY, as needed. A procurement specification is being prepared for this work. Individuals from Brokk will be here this month to see the work to be done. Pollution prevention funding was obtained to purchase a new 2-D GammaCam and a Canberra ISOCS system. The GammaCam will be upgraded to a 3-D system when funding is in place. As Sharon Bailey mentioned, the robotics team will start planning for the mapping of the drain line system. No funding from the DDFA nor EM-30 has been obtained yet to do the drain line system characterization. The current schedule calls for a PA to be done in FY01 and then in Spring 2002 a ROD on the U-plant is to be issued.

Miscellaneous Topics

The Hanford S&T needs for FY01 are to be finished on July 1, 2000 and then sent to DOE. The subgroups will have 4 to 6 weeks to review the needs. The needs are to be signed by the contractors before being submitted to the subgroups.

The vendor for the Robotics Work Platform ASTD project should be selected soon and deployment is scheduled for July. The Laser Cutting ASTD project has been moved from NTS to LANL. A contract for Phase One has been issued and a Lasertronics' system is being assembled.

AEA money has been obtained to characterize and clean out Tank 105 in the 324 Building. The inspection is scheduled for this year and AEA individuals will be here in February to begin the project.

The DDFA mid-year review is scheduled for March 28-30 in Morgantown, WV. The old FETC is now the National Energy Technology Laboratory (NETL) and will lead the review.

D&D Subgroup Meeting Attendees 01/11/00

Sharon Bailey	PNNL	375-2243
Gary Ballew	Pac Rim	946-0611
Greg Berlin	FDH - TM	372-4352
Bill Bonner	PNNL	372-6263
Dennis Brown	DOE-RL	372-4030
Suzanne Garrett	PNNL	372-4266
Mark Gibson	FDH	373-4869
Kim Koegler	BHI	372-9294
Charles Kronvall	FDH	376-9601
John Long	DOE-RL	372-4829
Roger Pressentin	DOE-RL	376-1291
Steve Weakley	PNNL	372-4275
Detlev Wegener	FDH-HAMMER	373-2021